

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/085619 A2

(51) International Patent Classification⁷:

C12N

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2004/008807

(22) International Filing Date: 22 March 2004 (22.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/456,714 21 March 2003 (21.03.2003) US

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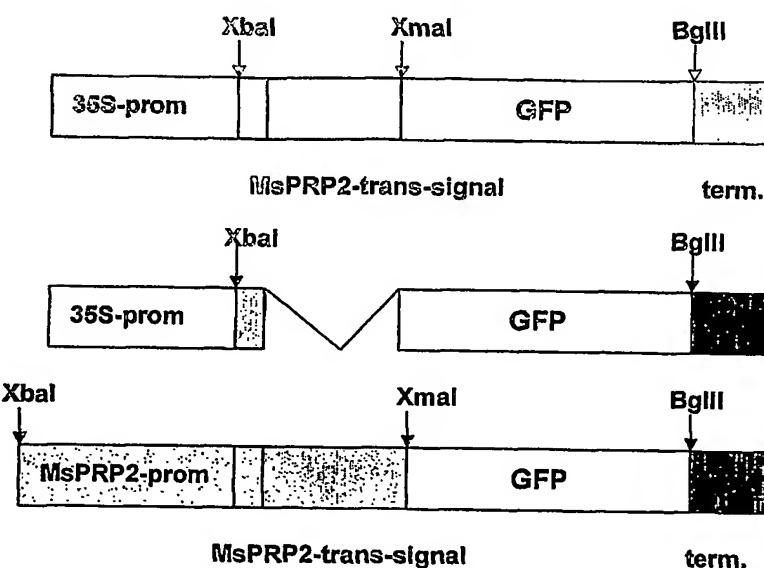
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXPRESSION OF DESIRABLE PROTEINS IN PLANT ROOTS AND CELL CULTURES



transcription factor Alfin1; the Alfin1 nucleotides are operably linked to another promoter such that the other promoter causes the transcription factor Alfin1 to be overexpressed. Also disclosed are plants and plant cells transfected with the preceding expression cassette. Also disclosed are methods for making plant cell-bound and secreted proteins. Seeds are made from transformed plant cells.

(57) Abstract: A new expression cassette for directing heterologous protein expression in plant roots has at least two portions, nucleotides encoding MsPRP2 promoter or a fragment thereof, said promoter or fragment comprising a portion of SEQ ID NO: 1; and nucleotides comprising a gene for a heterologous protein, operably linked to the MsPRP2 nucleotides. An expression cassette capable of directing heterologous protein expression in plant roots, comprising a) nucleotides encoding a promoter of MsPRP 2 or a fragment thereof; b) optionally nucleotides encoding a ribosomal binding site; c) optionally nucleotides encoding a secretion signal; and d) nucleotides encoding a heterologous protein, said protein nucleotides being operably linked to the MsPRP2 promoter nucleotides. The expression cassette further includes nucleotides encoding